MWH

December 6, 2004

Mr. Kevin Adler
Remedial Project Manager
U.S. Environmental Protection Agency
Region V, SR-J6
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: 2004 Residential Well Sampling Results
ACS NPL Site, Griffith, Indiana

Dear Mr. Adler:

Please find enclosed a series of tables summarizing the 2004 Residential Well Sampling Results. In accordance with the approved Long-Term Groundwater Monitoring Plan, samples from five residential wells near the ACS facility were analyzed for low-concentration volatile organic compounds, semi-volatile organic compounds, pesticides, poly-chlorinated biphenyls, metals, and cyanide. All analytical results have been validated in accordance with the approved Quality Assurance Project Plan.

Residential Well PW-Y (1002 Reder Road) was placed on city water during 2003, and therefore was not sampled during 2004. We are proposing to replace PW-Y with well PW-T (1043 Reder Road) in the annual sampling schedule. Well PW-B (1009 Reder Road) was not sampled this round as it appeared that the spigot was intentionally taped shut, and the resident could not be contacted. The resident at 1130 Reder Road (PW-Re; the "e" stands for the easternmost well at this address) requested that his well be sampled, and with your approval MWH collected a sample at that well in the place of PW-B for this round.

Tables 1 and 2 summarize the sampling results from all five residential wells in September 2004. Table 3 presents the detected organic and inorganic results for each well during the 2004 sampling event. Table 4 provides the current addresses, occupant's names, and phone numbers for each sampling location in September 2004.

The concentration of lead in the sample from well PW-C (20.7 ug/l) exceeded the U.S. EPA's maximum contaminant level (MCL) of 15 ug/l. This compound was also detected in a laboratory preparation blank and a continuing calibration blank, as shown in Table 5, and was thus qualified with a "B" flag during the validation process. Additionally, lead was not detected in the duplicate sample collected at well PW-C.

If you need additional copies of these tables, please let me know and we can forward them to you, or whomever you specify.

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Tel: 312 831 3000
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Sincerely,

MWH Americas, Inc.

Peter J. Vagt, Ph.D., CPG
Vice President

cc: Barbara Magel, Karaganis White & Magel, Ltd.
Prabhakar Kasarabada, IDEM
Mark Travers, Environ

Enclosures: Table 1 – Summary of Organic Compound Detections in Residential Wells – September 2004
Table 2 – Summary of Inorganic Compound Detections in Residential Wells – September 2004
Table 3 – Organic and Inorganic Detections (PW-A, PW-C, PW-D, PW-Re, PW-T)
Table 4 – Residential Well Sampling Information – September 2004
Table 5 – Summary of Inorganic Compound Detections in Laboratory Blank Samples Associated with Residential Well Samples – September 2004

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Table 1
Summary of Organic Compound Detections in Residential Wells - September 2004
American Chemical Service NPL Site
Griffith, Indiana

Analyte	U.S. EPA MCL	PW-A Sep-04	PW-A RL	PW-C Sep-04	PW-C RL	PW-C PWDUP	PW-C PWDUP RL	PW-D Sep-04	PW-D RL	PW-Re Sep-04	PW-Re RL	PW-T Sep-04	PW-T RL
Volatile Organic Compounds													
Bromodichloromethane	NA	0.23 J/J	0.5	U/UJ	0.5	U/UJ	0.5	U/UJ	0.5	U/UJ	0.5	U/UJ	0.5
Carbon Disulfide	NA	U/UJ	0.5	0.11 J/J	0.5	U/UJ	0.5	0.66 /J	0.5	U/UJ	0.5	U/UJ	0.5
Chloroform	NA	0.35 J/J	0.5	U/UJ	0.5	U/UJ	0.5	U/UJ	0.5	U/UJ	0.5	U/UJ	0.5
Semi-Volatile Organic Compounds													
Bis(2-ethylhexyl)phthalate	6	U/U	5	U/U	5	U/U	5	U/U	5	U/U	5	4.8 J/	5
PCBs/Pesticides													
4,4'-DDT	NA	0.01 J/	0.02	U/U	0.02	U/U	0.02	U/U	0.02	U/U	0.02	U/U	0.02

Notes:

All results in micrograms per liter (ug/l)

Only detected compounds listed

Blank cell indicates compound not detected in that sample

PWDUP = Duplicate sample

PCBs = poly-chlorinated biphenyls

MCL = Maximum Contaminant Level

NA = MCL does not exist for this analyte

RL = Reporting Limit

X / = Data qualifier added by laboratory

/X = Data qualifier added by validation

J = Estimated value; concentration detected is below reporting limit

U = Compound not detected above reporting limit.

UJ = Compound not detected above report limit; reporting limit is an estimated value

Table 2
Summary of Inorganic Compound Detections in Residential Wells - September 2004
American Chemical Services NPL Site
Griffith, Indiana

	U.S. EPA	MDL	PQL	PW-A			PW-C						PW-D			PW-Re			PW-T		
Analyte	MCL	(ug/l)	(ug/l)	Sep-04	LQ	DV	Sep-04	LQ	DV	PWDUP	LQ	DV	Sep-04	LQ	DV	Sep-04	LQ	DV	Sep-04	LQ	DV
Aluminum	NA	80.7	200		U			U			U			U			U			U	
Antimony	6	1.9	10		U		3.6	B	UB		U			U			U			U	
Arsenic	50	2.1	10		U			U			U			U			U			U	
Barium	2,000	1.3	200	121	B		139	B		139	B		137	B		160	B		139	B	
Beryllium	4	0.1	5		U			U			U			U			U			U	
Cadmium	5	0.2	5		U			U			U			U			U			U	
Calcium	NA	12.3	5,000	81,400			81,900			82,400			88,700			84,300			89,300		
Chromium	100	0.9	5		U			U			U			U			U			U	
Cobalt	NA	0.5	5		U			U			U			U			U			U	
Copper	1,300	0.6	5	3.4	B	UB	111		B	1.8	B	UB	3.2	B	UB	1.3	B	UB		U	
Cyanide	200	1.1	10		U			U			U			U			U			U	
Iron	NA	12.2	100	1,900		B	2,200		B	2,160		B	1,890		B	1,650		B	2,330		B
Lead	15	1.1	3		U		20.7		B		U			U			U			U	
Magnesium	NA	3.9	5,000	41,800			44,800			45,100			45,900			45,800			48,200		
Manganese	NA	1.8	10	32.2			31.1			30.8			30.7			22.8			32.4		
Mercury	2	0.64	0.64		U			U			U			U			U			U	
Nickel	NA	0.6	40		U			U			U			U			U			U	
Potassium	NA	26.9	5,000	1,910	BE	J	1,950	BE	J	1,930	BE	J	1,890	BE	J	2,160	BE	J	2,110	BE	J
Selenium	50	2.4	5	2.4	UN	UJ	2.4	UN	UJ	2.4	UN	UJ	2.4	UN	UJ	2.4	UN	UJ	2.4	UN	UJ
Silver	NA	0.8	5		U			U			U			U			U			U	
Sodium	NA	154	5,000	21,400			18,300			18,200			18,400			24,200			20,600		
Thallium	2	2.8	10		U			U			U			U			U			U	
Vanadium	NA	0.6	20		U			U			U			U			U			U	
Zinc	NA	4.1	20		U		35.4				U		7.2	B			U		15.3	B	

Notes:
All results in micrograms per liter (ug/l)
A blank cell indicates parameter not detected
MCL = Maximum Contaminant Level
NA = MCL does not exist for this analyte
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
LQ = Data qualifier added by laboratory
DV = Data qualifier added by validation
PWDUP - Duplicate sample

LQ Flags
U = Compound was not detected above the PQL
N = Sample spike recovery was outside of control limits
E = Serial dilution not within 10%. Concentration is estimated
B = Compound was detected above the MDL but below the PQL
It is considered an estimated concentration

DV Flags
B = Compound was detected in sample and in associated blank
J = Indicates an estimated value
UB = Compound not detected above indicated concentration due to blank contamination
UJ = Compound not detected, and detection limit is an estimated value

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Table 3
Summary of Detections in Residential Well PW-A
September 2004
American Chemical Service NPL Site, Griffith, Indiana

Analyte	U.S. EPA MCL	PW-A			
		Sep-04	LQ	DV	RL
Volatile Organic Compounds					
Bromodichloromethane	NA	0.23	J	J	0.5
Chloroform	NA	0.35	J	J	0.5
Semi-Volatile Organic Compounds					
None detected					
PCBs/Pesticides					
4,4'-DDT	NA	0.01	J		0.02
Inorganics					
Barium	2,000	121	B		200
Calcium	NA	81,400			5,000
Iron	NA	1,900		B	100
Magnesium	NA	41,800			5,000
Manganese	NA	32.2			10
Potassium	NA	1,910	BE	J	5,000
Sodium	NA	21,400			5,000

Notes:
All results in micrograms per liter (ug/l).
Only detected compounds listed.
PCBs = poly-chlorinated biphenyls
MCL = Maximum Contaminant Level
NA = MCL does not exist for this analyte
RL = Reporting Limit
LQ = Data qualifier added by laboratory (see below)
DV = Data qualifier added by validation (see below)

LQ Column Flags
J = Estimated value
B = Compound was detected below the RL, it is considered an estimated concentration.
E = Serial dilution not within 10%; Concentration is estimated.

DV Column Flags
B = Compound was detected in sample and in associated blank.
J = Concentration considered to be an estimated value.

Table 3
Summary of Detections in Residential Well PW-C
September 2004
American Chemical Service NPL Site, Griffith, Indiana

Analyte	U.S. EPA MCL	PW-C Sep-04	PW-C LQ	PW-C DV	PW-C RL	PWDUP Sep-04	PWDUP LQ	PWDUP DV	PWDUP RL
Volatile Organic Compounds									
Carbon Disulfide	NA	0.11	J	J	0.5	0.11	J	J	0.5
Semi-Volatile Organic Compounds									
None detected									
PCBs/Pesticides									
None detected									
Inorganics									
Barium	2,000	139	B		200	139	B		200
Calcium	NA	81,900			5,000	82,400			5,000
Copper	1,300	111		B	5	1.8	B	UB	5
Iron	NA	2,200		B	100	2,160		B	100
Lead	15	20.7		B	3		U		3
Magnesium	NA	44,800			5,000	45,100			5,000
Manganese	NA	31.1			10	30.8			10
Potasium	NA	1,950	BE	J	5,000	1,930	BE	J	5,000
Sodium	NA	18,300			5,000	18,200		UJ	5,000
Zinc	NA	35.4			20		U		20

Notes:
All results in micrograms per liter (ug/l).
Only detected compounds listed.
PCBs = poly-chlorinated biphenyls
MCL = Maximum Contaminant Level
NA = MCL does not exist for this analyte
RL = Reporting Limit
LQ = Data qualifier added by laboratory (see below)
DV = Data qualifier added by validation (see below)
PWDUP = Duplicate sample

LQ Column Flags
J = Estimated value
B = Compound was detected below the RL, it is considered an estimated concentration.
E = Serial dilution not within 10%; Concentration is estimated.

DV Column Flags
B = Compound was detected in sample and in associated blank.
J = Concentration considered to be an estimated value.

Table 3
Summary of Detections in Residential Well PW-D
September 2004
American Chemical Service NPL Site, Griffith, Indiana

Analyte	U.S. EPA MCL	PW-D Sep-04	LQ	DV	RL
Volatile Organic Compounds					
Carbon Disulfide	NA	0.66		J	0.5
Semi-Volatile Organic Compounds					
None detected					
PCBs/Pesticides					
None detected					
Inorganics					
Barium	2,000	137	B		200
Calcium	NA	88,700			5,000
Iron	NA	1,890		B	100
Magnesium	NA	45,900			5,000
Manganese	NA	30.7			10
Potassium	NA	1,890	BE	J	5,000
Sodium	NA	18,400			5,000
Zinc	NA	7.2	B		20

Notes:
All results in micrograms per liter (ug/l).
Only detected compounds listed.
PCBs = poly-chlorinated biphenyls
MCL = Maximum Contaminant Level
NA = MCL does not exist for this analyte
RL = Reporting Limit
LQ = Data qualifier added by laboratory (see below)
DV = Data qualifier added by validation (see below)

LQ Column Flags
J = Estimated value
B = Compound was detected below the RL, it is considered an estimated concentration.
E = Serial dilution not within 10%; Concentration is estimated.

DV Column Flags
B = Compound was detected in sample and in associated blank.
J = Concentration considered to be an estimated value.

Table 3
Summary of Detections in Residential Well PW-T
September 2004
American Chemical Service NPL Site, Griffith, Indiana

Analyte	U.S. EPA MCL	PW-T Sep-04	LQ	DV	RL
Volatile Organic Compounds					
None detected					
Semi-Volatile Organic Compounds					
Bis(2-ethylhexyl)phthalate	6	4.8	J		5
PCBs/Pesticides					
None detected					
Inorganics					
Barium	2,000	139	B		200
Calcium	NA	89,300			5,000
Iron	NA	2,330		B	100
Magnesium	NA	48,200			5,000
Manganese	NA	32.4			10
Potassium	NA	2,110	BE	J	5,000
Sodium	NA	20,600			5,000
Zinc	NA	15.3	B		20

Notes:

All results in micrograms per liter (ug/l)

Only detected compounds listed.

PCBs = poly-chlorinated biphenyls

MCL = Maximum Contaminant Level

NA = MCL does not exist for this analyte

RL = Reporting Limit

LQ = Data qualifier added by laboratory (see below)

DV = Data qualifier added by validation (see below)

LQ Column Flags

J = Estimated value

B = Compound was detected below the RL, it is considered an estimated concentration.

E = Serial dilution not within 10%; Concentration is estimated.

DV Column Flags

B = Compound was detected in sample and in associated blank.

J = Concentration considered to be an estimated value.

Table 3
Summary of Detections in Residential Well PW-Re
September 2004
American Chemical Service NPL Site, Griffith, Indiana

Analyte	U.S. EPA MCL	PW-Re Sep-04	LQ	DV	RL
Volatile Organic Compounds					
None detected					
Semi-Volatile Organic Compounds					
None detected					
PCBs/Pesticides					
None detected					
Inorganics					
Barium	2,000	160	B		200
Calcium	NA	84,300			5,000
Iron	NA	1,650		B	100
Magnesium	NA	45,800			5,000
Manganese	NA	22.8			10
Potassium	NA	2,160	BE	J	5,000
Sodium	NA	24,200			5,000

Notes:

All results in micrograms per liter (ug/l).

Only detected compounds listed.

PCBs = poly-chlorinated biphenyls

MCL = Maximum Contaminant Level

NA = MCL does not exist for this analyte

RL = Reporting Limit

LQ = Data qualifier added by laboratory (see below)

DV = Data qualifier added by validation (see below)

LQ Column Flags

J = Estimated value

B = Compound was detected below the RL, it is considered an estimated concentration.

E = Serial dilution not within 10%; Concentration is estimated.

DV Column Flags

B = Compound was detected in sample and in associated blank.

J = Concentration considered to be an estimated value.

Table 4
Residential Well Sampling Information
September 2004
American Chemical Service NPL Site, Griffith, Indiana

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Well ID	Address	Occupant	Phone	Landlord/Owner	Sample Location
PW-A	1007 Reder Road	Karen Brison	(219) 934-9162	Max Hanson	Outside spigot on west side of house.
PW-B	1009 Reder Road	James Garmon	(219) 924-2105	Owner	Outside spigot on south (front) side of house next to front entrance.
PW-C	1029 Reder Road	Charles Gregory	(219) 934-9121	Owner	Outside spigot on east side of house, near well.
PW-D	1033 Reder Road	Frank Floyd	(219) 924-5488	Owner	Spout inside shed located on north side of house.
PW-Re	1130 Reder Road	Steve Beigle	(219) 922-8065	Owner	Outside spigot near southwest corner of house.
PW-T	1043 Reder Road	Mark Rucinski	home: (219) 924-2534 work: (219) 392-1500 x440	Owner	Red-colored spigot on west side of house.

one-time new – replacement for PW-Y

Table 5
Summary of Inorganic Compound Detections in Laboratory Blank Samples Associated with Residential Well Samples - September 2004
American Chemical Services NPL Site
Griffith, Indiana

Blank Type and Detected Analytes Residential Well Samples (SDG 4517)	Maximum Concentration Detected (ug/l)
Preparation Blank	
Lead	1.299
Initial and Continuing Calibration Blanks	
Antimony	3.5
Arsenic	2.1
Beryllium	0.2
Chromium	4.3
Copper	0.9
Iron	52.4
Lead	1.8
Silver	1.0

Notes:
ug/l = micrograms per liter (ug/l)
SDG - Sample Delivery Group